PROJECT SCOPE AND OBJECTIVES (PSO)
FOR APPROVA 2022

FEBRUARY 2022

REVISION CHART

Version	Released by	Description of Version	Date Completed
V1	ASL	Initial Release	February 2022

Contents

1. PURPOSE OF THIS DOCUMENT

This document is intended to provide a complete requirement to design and develop the new Karum Approva 2022, general framework for the project, and to *clarify and confirm:*

- **Overview and objectives.**
- **Scope.**
- **Requirements for New Karum Approva 2022 and Assigner 2022.**
- **Next Steps.**

Once general agreement and approvals are obtained of these project requirements, this project will move forward quickly to the following development phases and deliverables:

1. Complete the PSO for the Web applications,
2. Discuss PSO with potential development partners and select a partner for this development,
3. Select development partner. Sign agreement
4. Clarify and confirm the project plan – Phases, deliverables, and checkpoints,
5. Infrastructure design,
6. Clarify the strategy for deployment,
7. Software Development,
8. Unit and system testing,
9. QA
10. Pilot
11. Go live Phase 1
12. Go live Phase 2
13. Go live Phase 3

It is expected that outside resources will be selected to assist with the verification, specification, design, development, testing and on-going support.

2. OVERVIEW

The retail industry is moving from location based to customer focused. This change in philosophy has been accelerated recently with the store lockdowns that resulted from the Coronavirus.

This change in philosophy and operations will cause Karum to move from PLC with direct connect in the store POS, to also embrace eCommerce and the internet of things. These changes are causing Karum to introduce new functions and features based on the current and emerging needs of the industry, our clients, and regulatory authorities.

To be more specific, our customers require new and different approaches to application processing (e.g., within the store, online using the retailers or Kuali's websites, within eCommerce, within the neighborhood, and even door-to-door).

Karum needs to minimize the cost, risk and time associated with managing and approving customer applications for credit. That means that we will probably use an outside resource to build the app, but we should look forward to extending our capabilities to support this application and capability in-house. With this point in mind, it is important to note that Karum must have the exclusive ownership of this Karum funded development.

Karum needs to improve its service levels, response times and customer service.

Karum needs to minimize the problem with customer statements, if not eliminate customer statements in their present form, which are currently being mailed and, we are told, are not reaching their destinations. Recent studies indicate as many as 75% of these statements may not be reaching the customers home in time, or at all.

Karum needs to find a new channel for communicating more effectively with its customers who, for the most part, are working class or informal people. Most of these people now have smartphones. Some say (and we need to verify) that as many as 85% of people in Mexico now have smartphones. It has also been said that people respond to SMS messages more than email, and most people respond to SMS messages within 5 minutes. Karum also needs to be aware that new messaging platforms have been introduced that may be more effective then SMS (e.g., Google's RCS).

In short, Karum is being pressed to provide more capabilities, new functions and features, faster implementations, higher security, proof of location and identity, electronic validations, rapid deployment and growth, different locations, and PCI compliance, amongst other things.

Last but not least, Karum needs to be mindful of emerging competition and their positioning.
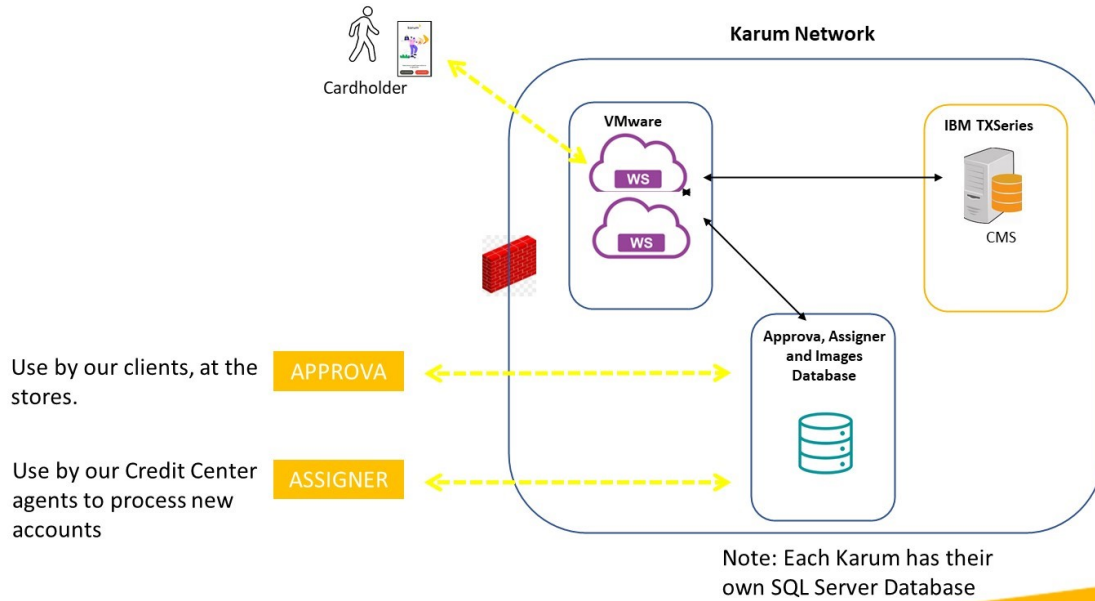
3. SCOPE AND OBJECTIVES

Karum's mission is to minimize the cost, risk and time normally associated with developments like this.

In the first phase of this development must be completed during Q1 2022. Karum's goal is to have the development work completed in March 2022.

The first phase will include the new origination process (including new account processing and the prescreen processes).

- This will be the front-end of Karum's Credit Management System (CMS). Logically speaking, this new web applications will be an essential part of our core system CMS, where the main business rules are implemented.

- The origination processes may be initiated face-to-face within the store, online using the retailers or Karum websites, within the retailer's eCommerce website, on Karum´s website, within the neighborhood, and even door-to-door).

- The origination process may be used by a registered promoter for the retailer or an individual access to the web app (in-store, at work or at home) to make the application themselves.

- The origination process should mimic the logical flow of the currently implemented Approva process. But reference should be made to the simplicity and ease of use of the Apple Card application process.

- It is a competitive advantage for Karum to be able to process these applications within 4 minutes. The quicker the better.

- However, Karum needs to comply with many rules and regulations that are imposed by the regulatory authorities, none the least of which are CNBV and Condusef.

- The origination process on the web app will need to include information retrieve geolocation data from the user's device since this requirement will become effective in March next year.   Due to the ambiguous wording of certain sections of the regulations, we believe there may be a chance to argue that the real-time interview requirement of these regulations will not apply, or that we can offer to explore the possibility of proposing alternatives to this proof of life (or identity) requirement.

- With these points in mind, Karum would like to take advantage of external interfaces to establish proof of identity each time the app is used. (ie OCR, ID validation, Biometrics, ..)

3.1 Current main connectivity diagram

Cardholder

Karum Network

VMware

WS

WS

IBM TXSeries

CMS

Use by our clients, at the stores.

APPROVA

Use by our Credit Center agents to process new accounts

ASSIGNER

Approva, Assigner and Images Database

Note: Each Karum has their own SQL Server Database

karum

3.2 First Phase.

In this **first phase**, Approva 2022 web application: Origination Ecommerce / Client, should include:

1. Login

    a. Initial enrollment - new Applicant:

        i. Cell phone (twice for validation)

        ii. Email (twice for validation)

    b. Previous enrollment – to update information or know status **(go to #19)**

        iii. Cell phone

        iv. Email

2. Main Instructions.

3. AML questionnaire.

4. Applicants enter initial information:

    a. Name

    b. Last Name

    c. Second Last Name

    d. Birth date (select from list)

    e. State of born (select from list)

    f. Gender (select from list)

5. Web Application calculate CURP. (* will provide the routine)

6. Applicants enter current billing address:

    a. Zip code (select from list)

    b. Estate (select from list)

    c. Municipio (select from list)

    d. Colonia (select from list)

    e. Street

    f. External number

    g. Internal number

7. Applicants enter job information:

    a. Company name

    b. Company Phone

    c. Monthly income

8. Identification:

    a. Applicants enter INE Id number or Passport number

      b. Upload INE (both sides) or Passport.

9. Accept:

      a. Privacy Announcement (check box and/or open text box)

      b. Terms & Conditions (check box and/or open text box)

      c. BdC / CdC agreement

10. Applicants enter a secure code (received by SMS)

11. Applicants received response:

      a. Approved – continue the process.

      b. Evaluation – continue the process.

      c. Declined – end of process.

      For future phase, will show other credit products for the applicants.

12. Applicants enter complementary information:

      a. Choose deliver method for statement file (select from list)

      b. Professional activity.

      c. House phone.

      d. Years, month living at their house.

13. Applicants enter complementary job information:

      a. Zip code (select from list)

      b. Estate (select from list)

      c. Municipio (select from list)

      d. Colonia (select from list)

      e. Street

      f. External number

      g. Internal number

      h. Job position (select from list)

      i. Company main activity (select from list)

14. Applicants upload:

      a. Proof of address

      b. Proof of incomes (optional)

15. Applicants select store to pick up the card.

16. Applicants enter personal references:

      a. 1 relative reference (name, cell phone, relative)

      b. 2 personal references (name, cell phone)

17. Web application show the complete credit agreement with a check box, so the applicant can accept the document.

18. Web application returns a "folio" number.

<u>End of process.</u>

19. Applicants will have 2 additional options:

    a. Login using cell phone and email. Including a double factor authentication (DFA).

       Continue the origination process in case they didn´t complete all the steps.

       The process needs to continue the last step that the client finish.

       To review how long will keep applicant – step.

    b. In case Credit center agents requires additional information and/or images.

3.3 Second Phase.

In the second phase, Approva 2022 web application: Store promoter (at store and/or at street):

1. Login:

       b. Promoter

       c. New Applicant

2.   Main Instructions

3. Privacy Announcement.

4. AML questionnaire.

5. Upload INE.

6. Enter current billing address, email and cell phone.

7. Select store to pickup your PLC (if be approve)

8. Job information.

9. Accept:

           i. Terms & conditions

           ii. Use of electronic media

           iii. BdC/CdC

10. Enter Secure Code. (sent by SMS)

11. <u>Only for new applicant</u>: Create password <mark>*TBD</mark>

12. Validate Secure Code.

     <u>For Approved (Evaluation process)</u>

13. Home detail

14. Profession

15. Job detail.

16. Relative reference and 2 Personal references

17. Upload proof of address.

18. Agreement electronic signature, check box

     <u>For Declined: End of process</u>

<u>Note: Additional functionalities for Approva 2022 – Promoters – Annex A</u>

3.4 Third Phase.

In the third phase, Assigner 2022 web application: Credit Center agents

Pending update current process

4. MAIN REQUIREMENTS

4.1 Main objectivs (B2C)

1. Paperless (Face to Face and No Presence)

2. 100% Compliance with Mexico Regulations.

3. Law ="Disposiciones de carácter general a que se refieren los artículos 115 de la Ley de Instituciones de Crédito en relación con el 87-D de la Ley General de Organizaciones y Actividades Auxiliares del Crédito y 95-Bis de este último ordenamiento, aplicables a las sociedades financieras de objeto múltiple".

4. PCI DSS (infrastructure and development) and Information Security - standard, procedures, and best practices.

4.2 General Features

High Availability

Has to be available 7 x 24 x 365, for all the account holders and clients.

Service Level Agreements (SLA) normally require a minimum 98% availability.

Scalability

Usability

Web browser reponsive.

Operating systems: IOS, Android and Windows

Laptops, Pc´s, smartphones and tablets.

Modular

All the services has to be configurable (enable – disable)

Micro services

API design

Data security

Personal Identification Information (PII) - encrypted.

SSL comunications layer.

Security controls, based on PCI DSS

To the web applications:

- In addition of a user, password and cell phone validation, take advantage of the smartphones and tablets security features, like face recognition, touchpad (for signature), fingerprint reader or others aditional components.

- None of the photos, scan documents, GPS records, touchpad images, etc. used during the origination process or card management process will be recorded or maintained on the smartphone or tablet.

To the Infrastructure:

- Based on the infrastructure definition, it´s necessary to define together the security architecture and the security internal modules, like operating system, datababases, among others.

GPS

Has to access to the GPS of the pc, laptop, smartphone or tablet to get the current geolocation, during the origination process. In the future, this may be used to track proof of identity for for other requests.

Multilanguage

Based on the market that we are focus – LATAM, the user (any user) can select a different language, mainly spanish, english and (possibly) portuguese.

Multitendency

Support multiple Karum clients, in a single DB and application

Database Architecture

Redisign of the Database.

Redefine internal updates for the Approva and Assigner processes.

NOTE: Include multi-currency, multi-country, multi-company, multi division within company

4.3 General Functionalities

Security access	Approva 2022:
	By client (cell phone, email), to review Ecommerce origination.
	By promoter (username, password, to review DFA)

	Assigner 2022: By agent (username, pawwword, to review DFA)
Security controls	• Username • Password • Double Factor Authentication (DFA) • Cellphone validation • Use of security features of the smartphones and tablets. • Recover password • Manage users: promoters and agents. To have an admin tool to update.
Security controls for system administrator	• Access to the servers and database (secure zone), using a two factor authentication (DFA). • PCI guidelines. • Define Robust Secure model and Security Information policies.
Acceptance Signatures	To review check box or DFA.
Internal audit of transactions.	• Each and every transaction has to be logged: correct login, fail login, date/time, transaction type, username, client, process, among others. • Based on PCI standards and requirements. • All the logs of each transactiosn can be extract to analyze or generate a report.

Back-up and recovery	• The backup process for all transactions and records must be online and in real time. Using the administration and support tools of the database manager, operating system and / or storage system.
	
	• Has to consider all the elements for "archive" and backup versions, so from the database, images and software.
	
	• The recovery process, in case of a disaster, must consider returning to the drop point and ensuring that any record is not lost.
	
	• Based on Internal Compliance and Mexico regulations, all customer records must be kept for 10 years, after having canceled their account.
	
	    • Client Information
	    • Images
	    • Video

	For App, reports and software development, has to be implemented a "software control version", with a change control authotization procedure and their backups.
	Follow PCI guidelines and external electronic vault.
Intercompany charges/billing Reports Data Mining	Extract the applications, by company, by promoter, by client. Keep track number and type of online transactions per App user. Be modular and adjust the parameters. Define reports and automatic distribution.

4.4 Users

The new web app will be access by:

Approva 2022:

By client (cell phone, email), to review Ecommerce origination.

- Origination process
- To define some management options (to re send images)

By promoter (username, pawwword, to review DFA)

- Origination process
- Management Approva options.

Assigner 2022:

By agent (username, pawwword, to review DFA)

- New Accounts agents
- Supervisor

The management team of our clients, probably will required some reports that has to be extracted from the App databases. Will be defined during the analysis phase.

- By client, region, by store, by promoter, by date
- By status: Approved, Review, Declined
- Export reports to excel or csv.

It´s necessary to include a Backoffice module to manage the users, like enable/disable users, delete users or update password, among others.

4.5 Enrollment

Enrollment module.

Create username for promoter.

Create username for credit center agent.

Always identifying which client, it belongs to.

Include cellphone number verification and password.

4.6 Certifications (to review)

- PCI-DSS (Infrastructure and App development)
- ISO 27001
- NOM 151 (to be confirmed)

4.7 Other requirements

Today Approva is the bridge to Assigner.

Assigner system support Credit Center new accounts and customer service functions.

Needs to define an interface from new web app Server to Assigner.

Also, internal review to define new roles and responsabilities of the Credit Center teams.

Database

To review new DB architecture to supot and manage this new web applications and processess.

5. EXTERNAL SERVICES

To define - here a list of possible services. (not defined yet, during the analysis phase will be defined):

Note: we made some research of services and fees

Service	Main description
IFE/INE OCR	Online OCR service for IFE/INE cards
Face match	Online service to compare both photos (IFE and Selfie)
Valid IFE/INE card	Online service to validate
CURP	Online generation of the CURP Online validate CURP
Email validation	Online service to validate the customer email.
Social network score	Online service to get a score from the social networks of the client
Proof of life	Online service to record a small video to validate proof of life Internal note: Reviewed with Charly, if we implemented a proof of life, we are going to ask to CNBV to give us a waiver (subject to the approval from the CNBV ~90days) to avoid executing the online interview. In additon need review with Mitek API.
Electronic signature apostille	Online service to generate an electronic signature affirmation before electronic notary, based on signature, photos and life testing video
NOM151	To be defined

6. Access to Documents

The account holder needs to access to documents, has to includes on Phase 1:

Contract and annexes	These documents are in pdf file. Need to define the process to send by email to the approve client the electronic file, including Nom151
Statement file	• The statement files are a pdf file. • Are generated by an external vendor. • Using the name of the file, can be assigned to the account holder and month/year. • Unsing a secure way, the statement files can be downloaded from the external vendor ftp server, once per month. • Needs to be online for the account holder for 12months.

7. REQUEST FOR PROPOSAL

The Development partners has to response complete to this project scope.

The proposal has to include:

- Implementation project plan, detail, by phase.
- Development Methodology.
- Proof of Concept (PoC).
- Technical design and architecture.
    - Web Application
    - Web Server
    - Database
    - Security controls
- Infrastructure requirements.
- Develop of PCI – Report of Compliance (RoC). Application development and Infrastructure.
- Price by phases.
- Warranty for bug fixes and code errors.
- On-going and operations support.
- SLA´s.
- PCI certifications (RoC, AoC).

Throughout the development project, the shared deliverables should include: (by phase)

- Source Code
- Analysis and design
- Detail charts of all the processes: users, controls, security and maintenance.
- Testings
- Deployment
- Document of PCI – Report of Compliance (RoC). Application development
- Backups and restore processes
- Security & Stress tests.

8. NEXT STEPS

1. February 1 to 11 - Schedule an internal meeting to clarify and confirm the PSO,

2. February 11 – Share PSO with potential development partners,

3. February 14 to 17 – Discuss and answer questions,

4. February 18 - Get proposals from potential development partner,

5. February 21 to 24 – Internal review of proposals,

6. February 25 - Choose the partner for this Web Applications development and sign agreement.

9. ANNEX A

Additional functionalities for Approva 2022 – Promoters